

The change to an industrial economy brought many benefits to British people. They used coal to heat their homes, ate better food, and wore better clothing. Many people also suffered, however. Industrialization caused many changes.

One change was a rise in the proportion of people who lived in cities. For centuries, most people in Europe had lived in the country. Now more and more lived in cities. The number of cities with more than 100,000 people doubled between 1800 and 1850. Because they grew quickly, cities were not ideal places to live. People could not find good housing, schools, or police protection. The cities were filthy with garbage, and sickness swept through slum areas. The average life span of a person living in a city was 17 years—compared to 38 years in the countryside.

Working conditions were harsh as well. The average worker spent 14 hours a day on the job, 6 days a week. Factories were dark, and the powerful machines were dangerous. Many workers were killed or seriously injured in accidents. Some rioted against the poor living and working conditions.

Some people improved their lives in the new economy. The middle class—made up of skilled workers, professionals, business people, and wealthy farmers—did well. They enjoyed comfortable lives in pleasant homes. This class began to grow in size, and some people in it grew wealthier than the nobles who had dominated society for many centuries. Still, nobles looked down on the people who gained their wealth from business. They, in turn, looked down on the poor workers.

Overall, the Industrial Revolution had many good effects. It increased the amount of goods and services a nation could produce and added to its wealth. It created jobs for workers and over time helped them live better lives. It produced better diets, better housing, and cheaper, better clothing. Many of these benefits were far in the future, however.

The English city of Manchester showed how industrialization changed society. Rapid growth made the city crowded and filthy. The factory owners risked their money and worked long hours to make their businesses grow. In return, they enjoyed huge profits and built huge houses. The workers also worked long hours, but had few benefits.

Many workers were children, some only six years old. Not until 1819 did the British government put limits on using children as workers. With so much industry in one place, Manchester suffered in another way. Coal smoke and cloth dyes polluted the air and water. Yet, Manchester also created many jobs, a variety of consumer goods, and great wealth.

Other countries followed the example of Britain and began to change their economies to an industrial base. The United States was one of the

first. Like Britain, it had water power, sources of coal and iron, and a ready supply of workers. The United States also benefited from conflict with Britain. During the War of 1812, Britain stopped shipping goods to the United States. As a result,

American industries had a chance to supply the goods that Americans wanted.

The switch to an industrial economy began in the United States in the textile industry. In 1789, based on memory and a partial design, a British worker brought the secret of Britain's textile machines to North America. He built a machine to spin thread. In 1813, a group of Massachusetts investors built a complex of factories that made cloth. Just a few years later they built an even larger complex in the town of Lowell. Thousands of workers, mostly young girls, came to these towns to work in the factories.

In the United States, industry grew first in the Northeast. In the last decades of the 1800s, a rapid burst of industrial growth took place that was more widespread. This boom was fueled by large supplies of coal, oil, and iron. Helping, too, was the appearance of a number of new inventions, including the electric light. As in Britain, railroad building was also a big part of this industrial growth.

Businesses needed huge sums of money to take on big projects. To raise money, companies sold shares of ownership, called stock. All those who held stock were part owners of the company. This form of organizing a business is called a corporation.

Industrial growth spread to Europe as well. Belgium was the first to adopt British ways. It was rich in iron and coal and had good waterways. It had the resources needed.

Germany was politically divided until the late 1800s. As a result, it could not develop a wide industrial economy. However, west-central Germany was rich in coal and did become a leading industrial site.

Across Europe, small areas began to change to the new industries. Industrial growth did not occur in France until after 1830. It was helped by the government's construction of a large network of railroads. Some countries—such as Austria-Hungary and Spain—had problems that stopped them from building new industries.

The Industrial Revolution changed the world. Countries that had adopted an industrial economy enjoyed more wealth and power than those that had not. The countries of Europe soon began to take advantage of lands in Africa and Asia. They used these lands as sources of raw materials needed for their factories. They saw the people only as markets for the goods they made. They took control of these lands, a practice called imperialism.

The Industrial Revolution changed life forever in the countries that industrialized. Problems

caused by industrialization led to movements for social reform.

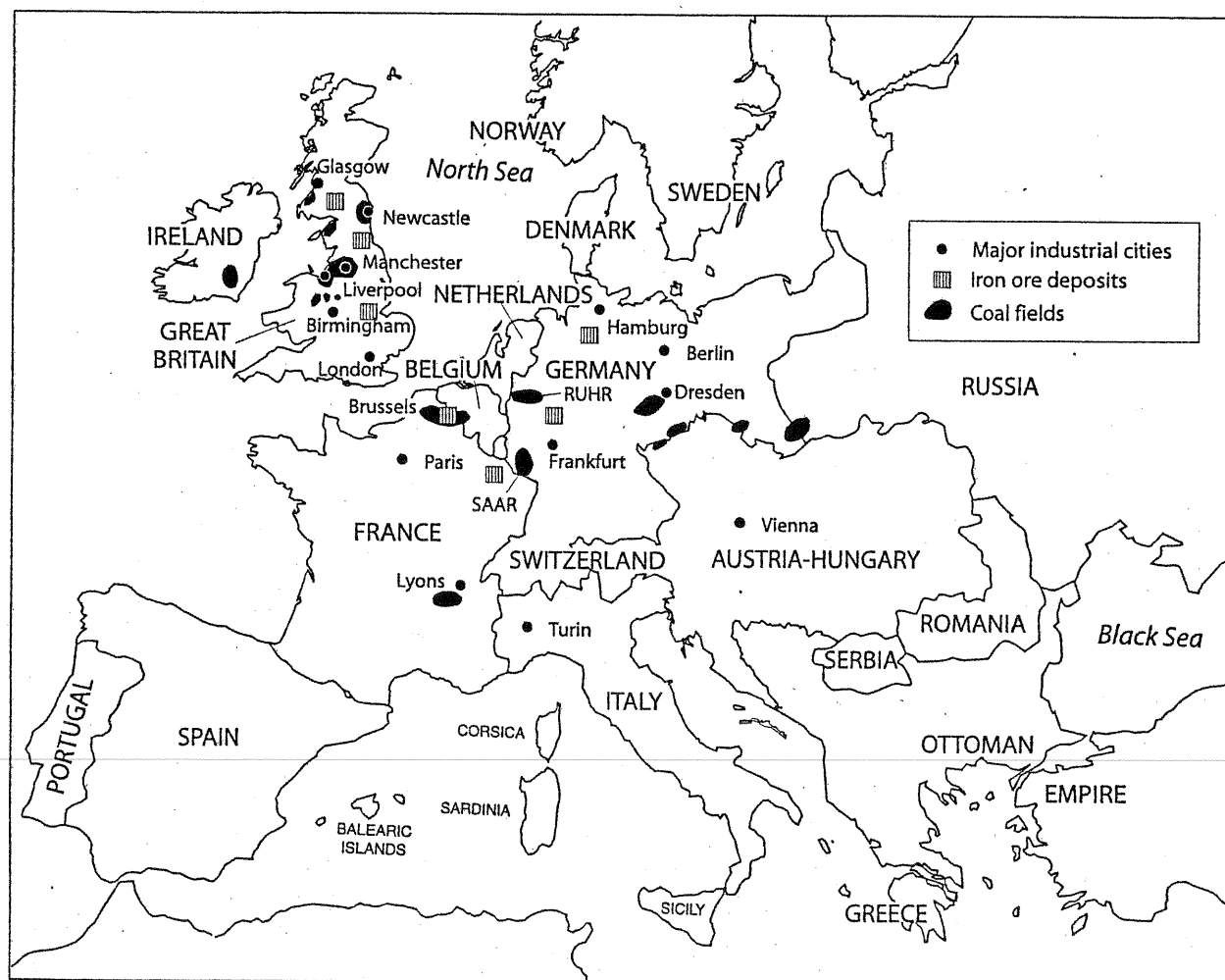
## Industrialization Spreads

**KEY IDEA** The industrialization that began in Great Britain spread to other parts of the world.

## Industrialization Case Study: Manchester

**KEY IDEA** The factory system changed the way people lived and worked, bringing both benefits and problems.

### Spread of Industry—1870



1. Which country has coal deposits equal to Great Britain's?
2. What type of situation may develop between Great Britain and the country mentioned in question 1?
3. Based on deposits of natural resources, as shown on the map, which are the industrial cities in Germany, France, and Belgium?
4. As the Industrial Revolution moved forward what do you see in the future—economically and politically—for Great Britain, Germany, and Belgium? Explain. Remember world political power is tied to economic power. In other words, wealthy nations control international markets and can also afford large armies, should they desire them.
5. What do you think will happen in the future to nations such as Spain, Russia, and Austria-Hungary? Explain.
6. Consider what you know about the following locations from 9<sup>th</sup> grade. Do they appear to have the necessary factors to create an Industrial Revolution in the 1700/1800s? Why or why not?
  - China
  - Japan
  - Latin America
  - Ottoman Empire
  - Mughal Empire
  - African Empires (Ghana, Mali, Songhai)